New Jersey Department of Environmental Protection
Site Remediation Program

CLASSIFICATION EXCEPTION AREA / WELL RESTRICTION AREA (CEA/WRA) FACT SHEET FORM

Date Stamp
(For Department use only)

SECTION A. SITE INFORMATION

Site Name: AOC-19: QC Laboratory, Hess Corporation - Former Port Reading Complex (HC-PR)

Program Interest (PI) Number(s): 006148

Case Tracking Number(s) for this submission: E20130449

This form must be attached to the Cover / Certification Form if not submitted through the RIR Online Service

1. Indicate the reason for submission of this form *(see instructions)*:

☒ New CEA ☐ Revise CEA ☐ Reestablish CEA ☐ Existing CEA with no changes
☐ CEA for historic fill ☐ CEA lift/removal

If you are submitting this form for an existing CEA provide the CEA Subject Item ID: _____

2. Indicate the type of ground water Remedial Action (RA):

☒ Natural ☐ Active ☐ Final RA not yet selected

3. Is this form being submitted with a Remedial Action Permit (RAP) Form (for Soil or Ground Water)? ... ☒ Yes ☐ No

SECTION B. CEA COMPONENT INFORMATION

1. **Contaminant(s):** This CEA/WRA applies only to contaminants above applicable numeric values established by the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9C, listed in the table below. Except for historic fill CEAs based on assumed ground water contamination, list the maximum contaminant value for all ground water data that could be representative of current conditions and is for any well or sampling point used to establish the CEA. The values listed below may or may not be appropriate for use in evaluating plume fate and transport. See form instructions.

Contaminant	Concentration (1)	GWQS (2)	SWQS(3)	GWSL(4)
Arsenic	10.7	3		

Notes:
(1) Maximum concentration in Micrograms Per Liter
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C
(3) Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.
(4) Current NJDEP Vapor Intrusion Ground Water Screening Levels available at http://www.nj.gov/dep/srp/guidance/vaporintrusion/

☐ Check if attaching an Addendum to list additional contaminants and associated information.

2. **CEA Boundaries:** Year of tax map used: 2014

For CEA revisions: ☐ check if CEA Boundary has changed (*See instructions*)
☐ check if Block and Lot numbers have changed (*See instructions*)

List the Block(s) and Lot(s) included in the areal extent of the Classification Exception Area:

Block(s)	Lot(s)	Check if off-site
664.01	1.01	☐
		☐
		☐
		☐
		☐

Block(s)	Lot(s)	Check if off-site
		☐
		☐
		☐
		☐
		☐

☐ Check if attaching an Addendum to list additional Blocks/Lots and associated information.

Narrative description of proposed CEA:

A CEA approximately 12,700 square feet is being established to address low level arsenic impacts to approximately 15 feet below grade. (see Exhibit D)

Name(s) of the affected Geologic Formation(s)/Unit(s): Rahway Till

Direction of ground water flow: SE (*If multiple water bearing zones exist within the CEA and/or there is no predominant flow direction, see instructions.*)

Ground Water Classification: Class IIA (*See instructions and GWQS for classification area information.*)

Vertical Depth of CEA: 15 (ft bgs) **and** 4 (msl).

Horizontal Extent of CEA: 12,700 Indicate units: ☐ acres or ☒ square feet

3. Projected Term of CEA: *(Based on modeling/calculations in the fate and transport description)*

Proposed Duration in Years: _____ Anticipated Expiration Date: _____

or ☒ Indeterminate (*Review instructions before selecting* "Indeterminate.")

4. <u>ATTACH AND/OR SUBMIT THE FOLLOWING</u>: (*see instructions for additional information*)

Exhibit A: Site Location Maps – USGS Quadrangle Map;

Exhibit B: CEA Map and Cross Section Figure – See N.J.A.C 7:26C- 7.3(c)1 and 2 and instructions regarding what to include on the map and the cross-section figure.

Exhibit C: GIS Deliverables – CEA Boundary Extent Map. The CEA Boundary Extent Map shall be submitted via email to srpgis_cea@dep.nj.gov. See the instructions for detailed GIS deliverable requirements.

For revisions, does the attached map differ from the CEA map on NJ-GeoWeb? ☐ Yes ☐ No ☒ N/A

If "Yes or N/A," identify the format of the CEA Boundary Extent Map: ..... ☒ Shape File ☐ CAD File

SECTION C. CURRENT GROUND WATER USE DOCUMENTATION

1. Indicate the year of the most recent well search completed per N.J.A.C. 7:26E-1.14: 2015
2. If this Fact Sheet form is for a revised CEA or an existing CEA with no changes, have new wells been installed since the CEA was established? ..... ☐ Yes ☐ No ☒ N/A
3. Are there any pumping wells (e.g., potable, industrial, irrigation or recovery wells) within the foot print of the CEA? ..... ☐ Yes ☒ No

SECTION D. WELL RESTRICTION INFORMATION

Certain well restrictions relevant to potable ground water use, such as "Double Case Wells", "Sample Potable Wells", and "Evaluate Production Wells", are consistently set within the boundaries of all CEAs established by the NJDEP in Class I and II-A areas (*see instructions*).

1. Are there any other site-specific well restrictions relevant to potable ground water use that should be set within or near the boundaries of the proposed CEA? ☐ Yes ☒ No

   If "Yes", describe below any such site-specific well restrictions proposed for this CEA:

SECTION E. PUBLIC NOTIFICATION REQUIREMENTS

See form instructions for notification procedures

1. Indicate which of the following entities have been notified pursuant to N.J.A.C. 7:26C-7.3(d). (*check all that apply*)
   - ☒ Municipal and county clerk(s)
   - ☒ Local, county or regional health department(s)
   - ☒ Designated County Environmental Health Act agency (if applicable)
   - ☒ County Planning Board
   - ☐ Pinelands Commission (if applicable)
   - ☐ Owners of real property overlying CEA foot print

2. **List of Names and Addresses** – List below and/or in an attachment, the names/addresses of all persons notified pursuant to N.J.A.C. 7:26C-7.3(d) based on the proposed CEA boundaries. If the site property owner differs from the person responsible for conducting the remediation, enter the site owner's name and address first in below table. See instructions for more information regarding address list and indicating if vapor intrusion was evaluated for properties over the CEA.

   ☒ Check here if no volatile contaminants are in the CEA

Entity or Owner Name	**Notification Address Used** (include applicable block and lot overlying CEA if owner address differs from property address)	**Date notification sent**	**Was property evaluated for vapor intrusion?** Check if "Yes"
John Mitch, Municipal Clerk	1 Man Street, Woodbridge, NJ 07095	06/06/2017	☐
Dennis Green, Director	Health & Human Services, 2 George Frederick Plaza, Woodbridge	06/06/2017	☐
Elaine Flynn, Clerk	County Admin Bldg, 75 Bayard St, New Brunswick, NJ	06/06/2017	☐
Middlesex County Public Safety & Health	35 Kennedy Blvd, East Brunswick, NJ 08816	06/06/2017	☐
Office of Planning	County Admin Bldg, 75 Bayard St, New Brunswick, NJ	06/06/2017	☐
Environmental Health Division	County Admin Bldg, 75 Bayard St, New Brunswick, NJ	06/06/2017	☐
			☐
			☐
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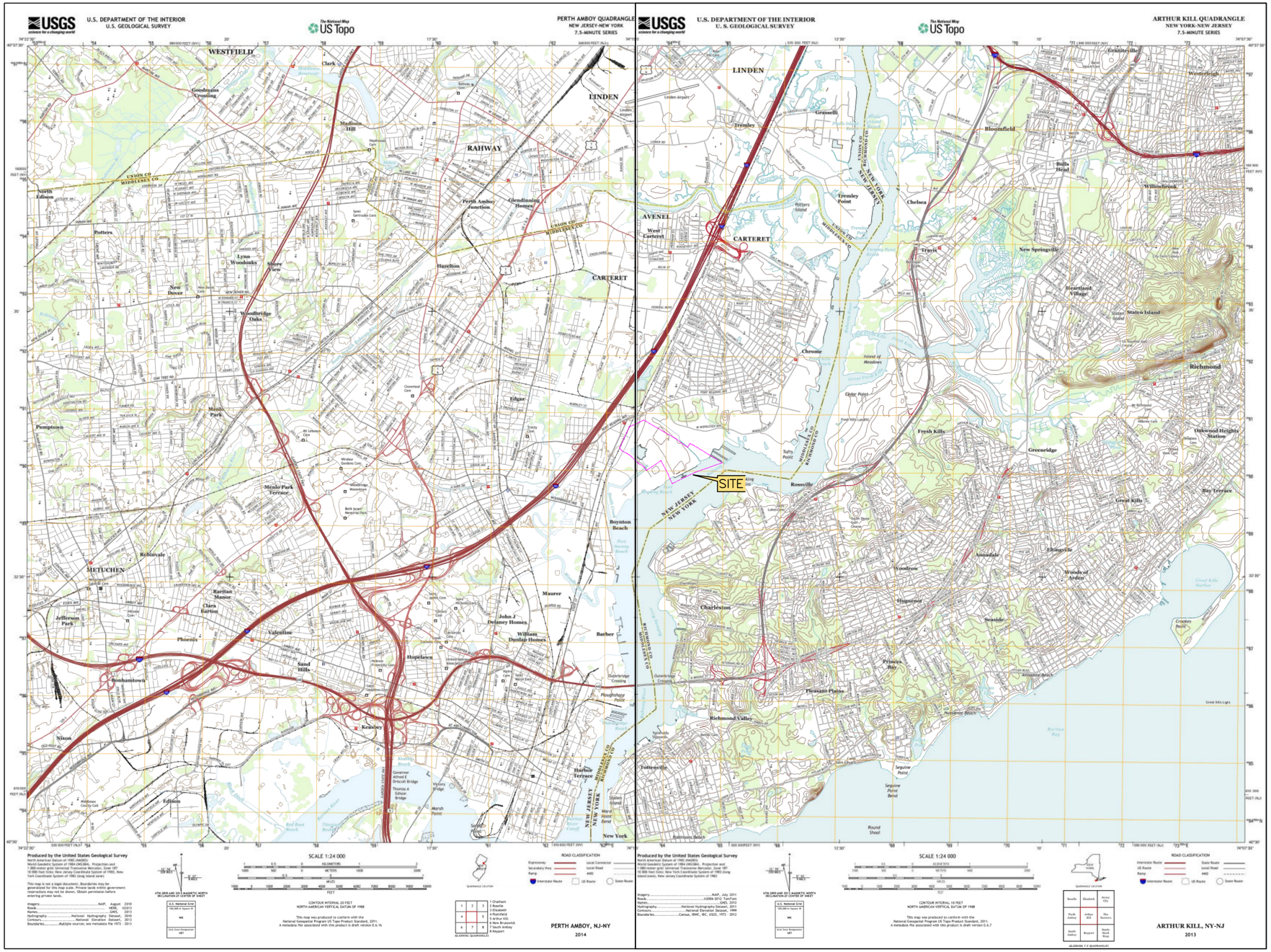
			☐
			☐
			☐
			☐
			☐



USGS MAP

Hess Corporation Former Port Reading Complex (HC–PR)
750 Cliff Road
Port Reading, New Jersey

Earth Systems

Exhibit A-1

09/15 FIG1

N

PER-6R

GRASS

ASPHALT

GRASS

CONCRETE

6,000 GAL. UST

T1
1,000 GAL. UST

MW-1

MW-4

T2
4,000 GAL. UST

MW-2

T3
10,000 GAL. UST

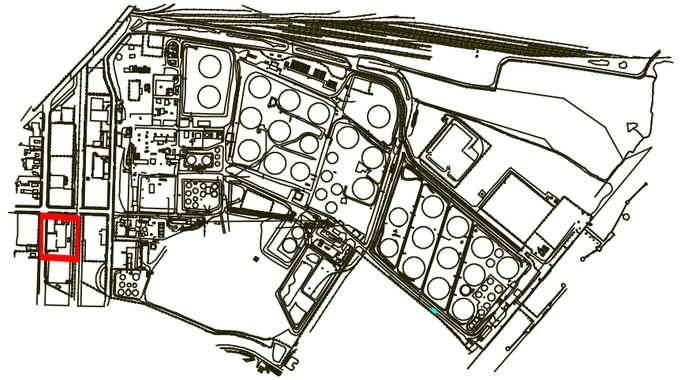
Former Building

TANK 1
10,000 GAL. UST

MW-3

LEGEND

Monitoring Well



0 15 30 60 Feet

1 inch = 30 feet

Exhibit A-2 - QC Lab Parcel

Hess Former Port Reading Complex - QC Lab
835 West Avenue
Port Reading, New Jersey

Drawn By:	RC	**Date :**	4/25/2017

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.449.0077 | F. 732.449.5810

PER-6R

GRASS

ASPHALT

GRASS

T4

6,000 GAL. UST

CONCRETE

T1

1,000 GAL. UST

MW-1

MW-4

MW-2

MW-3

Former Building

TANK 1

10,000 GAL. UST

LEGEND

- Site Parcel Boundary
- Monitoring Well
- Arsenic CEA (Estimated)

N

1 inch = 25 feet

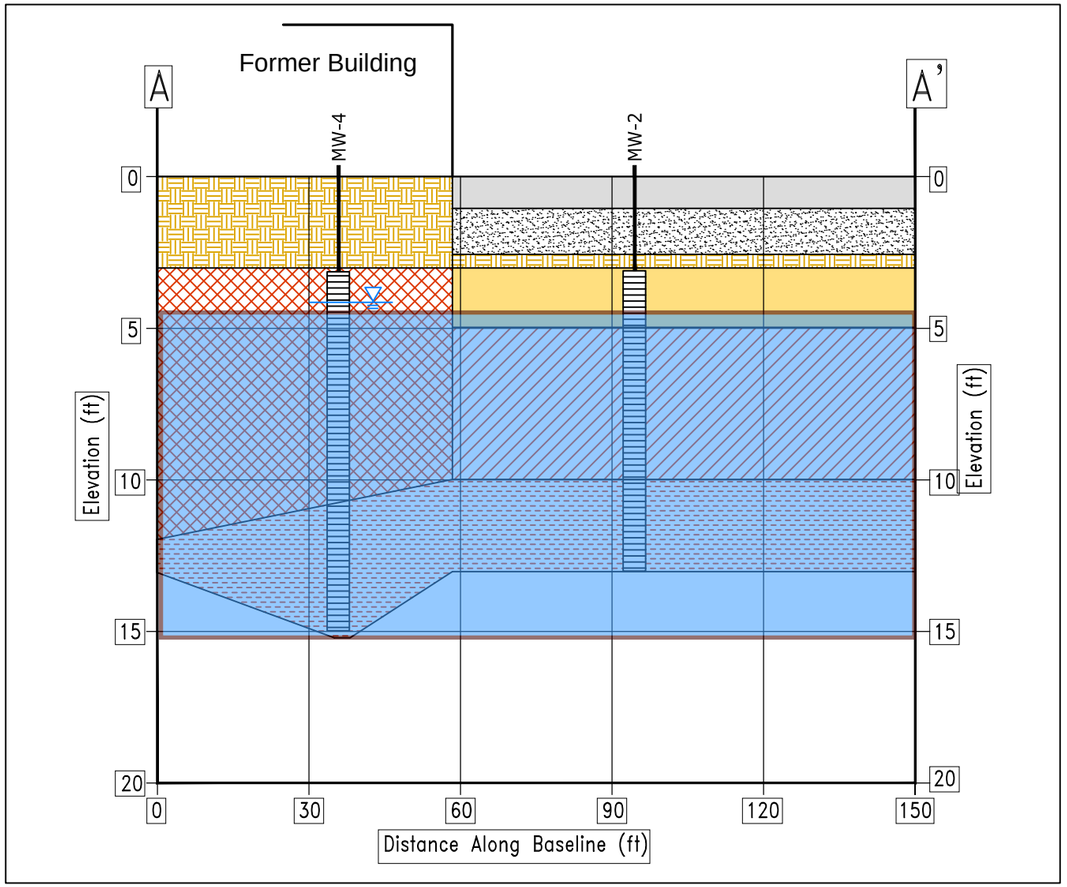
0 12.5 25 50 Feet

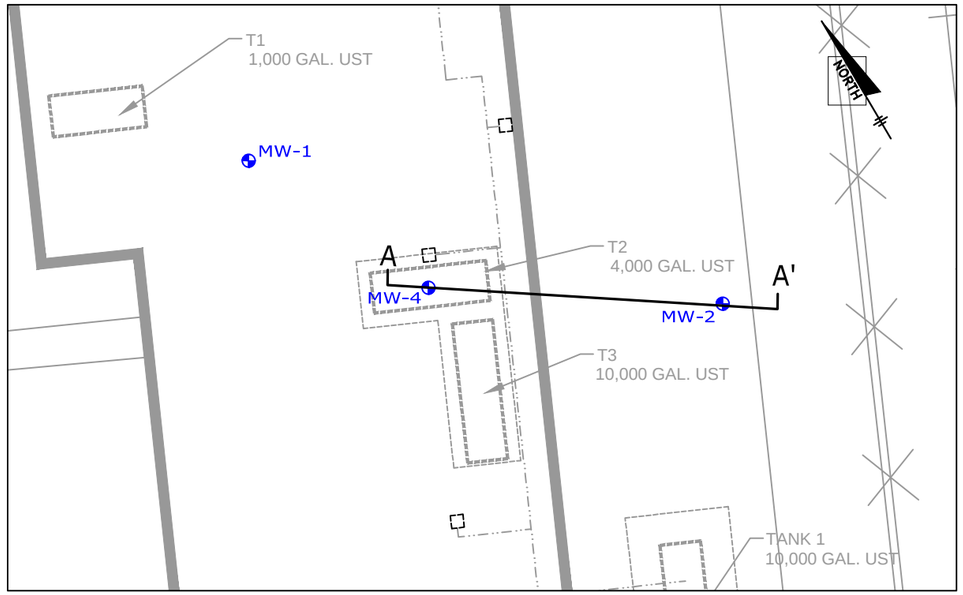
Exhibit B -1 - Arsenic CEA Boundary Map

Hess Former Port Reading Complex - QC Lab
835 West Avenue
Port Reading, New Jersey

Drawn By:	RC	Date :	06/02/2017

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.449.0077 | F. 732.449.5810





KEYMAP
SCALE: 1"=30'

LEGEND

- ASPHALT
- GRAVEL
- OVERBURDEN
- BROWN SANDY SILT-SATURATED
- RED BROWN SANDY CLAY
- RED BROWN CLAY
- SAND/FILL/MIXED MATERIALS
- MW-4 — MONITORING WELL AND SCREEN LOCATION AND ID
- APPROXIMATE SHALLOW GROUND WATER ELEVATION
- ARSENIC CEA

VERTICAL
1 inch = 5 ft.
5
2.5

HORIZONTAL
1 inch = 30 ft.
15
30

GEOLOGIC CROSS SECTION

HESS CORPORATION
HESS PORT READING COMPLEX
FORMER QC LABORATORY
835 WEST AVENUE
PORT READING, NEW JERSEY

Earth Systems

Exhibit B-2

CLASSIFICATION EXCEPTION AREA (CEA)

EXHIBIT D

1 Background Information

This Classification Exception Area (CEA) is being established for the area of concern designated as AOC-19: Former Quality Control Laboratory (QC Lab or Site) associated with the Hess Corporation Former Port Reading Complex (HC-PR). The former QC Lab is located on Block 664.01 and Lot 1.01 (835 West Avenue, Port Reading, Middlesex County, New Jersey).

The QC Lab was demolished in 2015 and included the decommissioning of four (4) underground storage tanks (USTs). The USTs served the Lab as the endpoint of waste petroleum products that were tested and evaluated within the building. Following decommissioning and removal, soil samples were collected. The analyses identified soil impacts attributable to historic releases from the USTs. In 2016, all impacted soil was excavated from the AOC and post remediation groundwater sampling confirmed that soil remediation to address impacts attributable to the historic UST release was effective.

This CEA is being established to address low level groundwater arsenic impacts, unrelated to the historic UST release. No significant arsenic soil impacts were detected during investigation activities. Once the CEA is established and the Remedial Action Permit (RAP) is approved, the Licensed Site Remediation Professional (LSRP) will issue a Limited Restricted Use Response Action Outcome to close out the AOC.

2 Fate and Transport – CEA Longevity

The proposed duration of the CEA is indeterminate. As specified in the CEA form instructions, indeterminate is an acceptable duration when metals are the only contaminant of concern.

3 Horizontal and Vertical Extent of CEA

The horizontal extent of the CEA is approximately 12,700 square feet. Groundwater direction generally flows in the east, southeast direction. The QC lab parcel is being investigated concurrently with the entire Port Reading complex (located directly to the east). As part of the investigation and remediation of the remaining Port Reading AOCs, a CEA will ultimately be established for the Port Reading complex also. Therefore, even though the boundaries of the QC Lab CEA are not defined to the east, the CEA is still protective since a CEA will also be established to address the remaining Site AOCs located adjacent to the QC lab parcel. The vertical depth of the CEA has been assumed to be confined to the shallow groundwater table, approximately 15 feet below grade.

4 Monitored Natural Attenuation (MNA)

Monitored natural attenuation (MNA) is the remedial action selected to address arsenic impacts at the Site. MNA refers to the reliance on natural attenuation processes to achieve the applicable ground water remediation standard. Natural attenuation processes include a variety of physical, chemical, or biological processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in ground water. These processes include biodegradation, dispersion, dilution, sorption, volatilization, and chemical or biological stabilization, transformation, or destruction of contaminants.

MNA is the appropriate remedy to address the groundwater impacts associated with this Site for the following reasons:

- Soil remediation was completed at the Site which effectively removed all source impacted soils;
- No significant arsenic soil impacts were identified during investigation activities;

5 Monitoring Schedule

Groundwater at the site is impacted with low levels of arsenic. Groundwater sampling of the QC lab wells will be conducted on an annual basis for arsenic analysis.